

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# <u>Instructions</u>

# Zymoprep™ Yeast Plasmid Miniprep II

Catalog Number D2004

### **Highlights**

- Simple spin column format for plasmid rescue from yeast.
- ♦ Highly efficient.
- No glass beads, no phenol, no vortexing, no precipitation.
- ♦ Ideal for low copy and hard to isolate plasmids.

#### **Table of Contents**

General Information	
Kit Contents	
Ordering Information	
General Description	
Protocol For Colonies or Patches	
Protocol For Liquid Culture	



The Beauty of Science is to Make Things Simple

# **GENERAL INFORMATION**

**Specificity:** S. cerevisiae, C. albicans and S. pombe, and other fungi species sensitive to yeast lytic enzymatic digestion (**Zymolyase**™).

• Plasmid Purity: Plasmid is recovered in water or TE.

• Recovery Volume: 10 ul

 Plasmid Size: Up to 23 Kb (For plasmids > 15 Kb add elution water or TE and incubate for up to 5 minute before centrifugation).

• DNA Binding Capacity: 5 ug

• Stability: Quality is guaranteed for 1 year from the purchase date.

### **Kit Contents:**

Products	Qty./Size	Storage	Catalog	
Zymoprep™ II D2004 For 50 plasmid rescues.				
Solution 1	10 ml	Room Temp.	D2004-1-10	
Solution 2	10 ml	Room Temp.	D2004-2-10	
Solution 3	20 ml	Room Temp.	D2004-3-20	
Wash Buffer <sup>1</sup> (Concentrate)	6 ml	Room Temp	D4003-2-6	
Zymolyase, (Resuspend the lyophilized enzyme by adding 200 ul <b>Storage Buffer</b> to make 5 units/ul)	1,000 Units <sup>2</sup> (lyophilized) Storage Buffer 500 ul	-20°C	E1004	
Zymo-Spin I Columns™	Pack of 50	Room Temp.	C1003-50	
Collection Tubes	Pack of 50	Room Temp.	C1001-50	
Instruction Sheet	1	-	-	
Additional Products				
Zymolyase, lyophilized	2,000 Units Storage Buffer 500 ul	-20°C	E1005	

 $<sup>^{\</sup>text{\tiny{TM}}}$  Zymoprep and Zymo-Spin I Column are trademarks of Zymo Research Corp.

For research use only. Always wear protective gloves and eye protection. These reagents are intended for use by trained professionals. Further precautions should be taken according to your own company's regulations.

<sup>1</sup> Ethanol is not provided

<sup>2</sup> This reagent contains beta-mercaptoethanol

### **GENERAL DESCRIPTION**

**Zymoprep<sup>™</sup> II** provides all the necessary reagents for plasmid isolation from *S. cerevisiae, C. albicans* and *S. pombe*, and any fungi whose cell walls are susceptible to yeast lytic enzyme lysis. **Zymoprep<sup>™</sup> II** is a simple and efficient yeast plasmid miniprep kit that is based on the old E. *coli* alkaline lysis method with our Zymolyase<sup>™</sup> added in the first solution. There is no need for glass beads, or phenol. Reliably recover your plasmid from yeast cells every time, whether you use colonies, patches on plates, or liquid cultures. The plasmid isolated by the kit via **Zymo-Spin column I** can be used directly for *E. coli* transformation, PCR, and Southern blot analysis. The plasmid recovery for **Zymoprep<sup>™</sup> II** is about 5 fold more compared to **Zymoprep<sup>™</sup> I** and eliminates the isopropanol precipitation step. The recovered plasmid is in water or TE buffer. This system is ideal for low-copy number and hard to isolate plasmids.

Two Protocols are provided. The first protocol is for yeast plasmid recovery from colonies or patches; the second protocol is for liquid culture. Although both protocols work equally well, it is much easy to use colonies or patches to process large number samples in our hands.

#### **Before Starting**

Prepare Wash Buffer: Add 24ml of 100% ethanol (or 26ml of 95% ethanol) to the Wash Buffer Concentrate to make the final working Wash Buffer.

Reconstitute the Zymolyase™: Add 200 ul of the supplied Storage Buffer to the lyophilized Zymolyase™. Mix to dissolve the enzyme completely, spin briefly in a micro-centrifuge. Store the reconstituted Zymolyase™ at -20°C.

Unless stated otherwise, the following procedures are accomplished at room temperature. Grow yeast cells at 30°C in YPD or selective medium.

### **Protocol For Colonies or Patches**

- 1. Use tooth pick or pipette tip to pick roughly 2-10 ul volume of yeast colonies or patches from plates and dispense into 200 ul of **Solution 1**, add 3 ul of Zymolyase™ to each tube.
- Note: For multiple sample process, add 15μl Zymolyase<sup>TM</sup> for each ml of Solution 1 to make a Solution 1-enzyme mixture. Use 200μl of this mixture to resuspend the pellet for each sample. Generally fresh colonies or patches (less than 5 days) give better plasmid recovery than old colonies or patches. Add more Zymolyase<sup>TM</sup> for old culture to ensure efficient lysis.
- 2. Incubate at 37°C for 15-60 minutes (15 minutes is the minimal incubation time. Longer incubation is optional, but is suggested for stationary phase or older cells).
- 3. Add 200 ul Solution 2 to each tube. Mix well.
- 4. Add 400 ul Solution 3 to each tube. Mix well.
- 5. Centrifuge at maximum speed for 3 minutes.
- 6. Transfer the supernatant to the **Zymo-Spin-I** column.
- 7. Spin the **Zymo-Spin I** column for 30 seconds.
- 8. Discard the flow-through in the collection tube. Make sure the liquid does not touch the bottom part of the column.
- 9. Add 550 ul of **Wash Buffer** onto the column with the collection tube and spin for 1-2 minutes. Discard the flow through. Place column into a new 1.5 ml microfuge tube (not provided).
- 10. Add 10 ul of water or TE and spin for 30 seconds-1 minute to elute plasmid off the column into a new 1.5 ml microfuge tube. For plasmids larger than > 15 Kb, incubate the column and elution buffer (water or TE) for 5 minutes before centrifugation to increase plasmid yields.

### **Protocol For Liquid Culture**

1. Aliquot 0.1-1.5 ml of the yeast cells into 1.5 ml microfuge tubes and spin down the cells at 600 x g for 2 minutes.

Note: For multiple sample process, add 15 ul Zymolyase™ for each ml of Solution 1 to make a Solution 1-enzyme mixture. Use 200μl of this mixture to resuspend the pellet for each sample. Generally fresh culture gives better plasmid recovery than old culture. Add more Zymolyase™ for old culture to ensure efficient lysis. Ideally cells should be harvested in early log phase (OD600: 0.2-0.6). If cells are harvested from stationary phase cultures or old culture is used, add more Zymolyase™ to ensure efficient lysis.

- 2. Add 200 ul Solution 1 to each pellet.
- 3. Add 3 ul of **Zymolyase**™ to each tube. Resuspend the pellet by flicking with finger or mild vortexing.
- 4. Incubate at 37°C for 15-60 minutes (15 minutes is the minimal incubation time. Longer incubation is optional, but is suggested for stationary phase or older cells).
- 5. Add 200 ul Solution 2 to each tube. Mix well.
- 6. Add 400 ul **Solution 3** to each tube. Mix well.
- 7. Centrifuge at maximum speed for 3 minutes.
- 8. Transfer the supernatant to the **Zymo-Spin-I** column.
- 9. Spin the **Zymo-Spin I** column for 30 seconds.
- 10. Discard the flow-through in the collection tube. Make sure the liquid does not touch the bottom part of the column.
- 11. Add 550 ul of **Wash Buffer** (ethanol added) onto the column with the collection tube and spin for 1-2 minutes. Discard the wash buffer. Place column into a new 1.5 ml microfuge tube (not provided).
- 12. Add 10 ul of water or TE and spin for 30 seconds-1 minute to elute plasmid off the column into a new 1.5 ml microfuge tube. For plasmids larger than > 15 Kb, incubate the column and elution buffer (water or TE) for 5 minutes before centrifugation to increase plasmid yields.

#### Other Yeast Related Products

Product	Description	Cat. No.	Size
YeaStar™ Genomic DNA Kit	Reagents provided are for 40 fungal genomic DNA preparations.	D2002	1 Kit
YeaStar™ RNA Kit	Reagents provided are for 40 fungal RNA preparations.	R1001	1 Kit
Yeast Protein Kit™	Reagents provided are for 200 protein analyses.	Y1002	1 Kit
Zymolyase™	One lytic unit is defined as a 10% decrease in	E1001	1,000 units, 400 ul
Liquid format. Shipped on wet ice.	absorbance at A <sub>800</sub> in 30 minutes.	E1002	2,000 units, 200 ul
Zymolyase™	One lytic unit is defined as a 10% decrease in	E1004	1,000 units
Lyophilized format. Shipped at	absorbance at A800 in 30 minutes. (Storage Buffer	E1005	2,000 units
ambient temperature	is provided for reconstitution of the enzyme.)		
Alpha-Factor Mating	Concentration: 4 mg at 10 mM in 0.1 M sodium	Y1001	1 Kit
Pheromone	acetate pH 5.2.		
Zymoprep™ Yeast Plasmid	Reagents provided are for 100 yeast	D2001	1 Kit
Miniprep I	minipreps. Isopropanol precipitation method.		
Frozen EZ™ Yeast	Reagents provided are for 120 regular or 600	T2001	1 Kit
Transformation Kit	microscale transformation experiments.		
	Powder, molecular biology grade	F9001-1	1 g
FEOA		F9001-5	5 g
5FOA	2Xsynthetic complete/5FOA at 2 mg/ml	F9002	250 ml
	100X5FOA in DMSO, 100mg/ml	F9003	10 ml